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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Pillsbury Winthrop LLP
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EXAMINER	
PIZARRO, RICARDO M	

ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/044,325	IYER ET AL.	
	Examiner	Art Unit	
	Ricardo Pizarro	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 January 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 January 2002* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because they lack proper labeling of all the elements shown. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1,4-5, 8-9, 10, 15-19, 21-23, 25, 27- 29 are rejected under 35 U.S.C. 102(e) as being anticipated by US 2004/0202171 (Hama).

Regarding claims 1, 4,5, 7-9 Hama discloses a method of forwarding data packets from a source endsystem in a first enterprise local area network (LAN) to a destination endsystem in a second enterprise LAN through a plurality of multi-protocol labeling system (MPLS)-aware routers an a global network(Internet, paragraph 0070 lines 5-7), comprising: establishing a first virtual LAN identifier (VLAN-ID) to transport all data packets from the source endsystem to an ingress routing device at the global network (VLAN ID 101 to ingress routing device 211 in FIG 2; creating a Label-switched path (LSP) through the plurality of MPLS-aware routers to transport all of the data packets from the ingress routing device to an egress routing device an the global network(It would be inherent in a MPLS network to create such an LSP path due to that the MPLS label in a packet can serve as an index into a forwarding table

which specifies the next node for the packet. The path associated with a virtual circuit within an MPLS network is referred to as a Label Switched Path (or LSP)-and delineated by one or more MPLS labels that are, at various times, encapsulated into packets propagating over this path) ; and establishing a second VLAN-ID to transport the data packets from the egress routing device to the destination end system in the second enterprise LAN. (VLAN-ID 1501 in Fig. 6)

Regarding claim 4, wherein the global network is an Internet (paragraph 0070 lines 5-7)

Regarding claim 5, wherein a third VLAN-ID is used in conjunction with the first LAN-ID to transport the data packets from the source endsystem to the ingress routing device an the global network (Third VLAN-ID 2 in Fig. 6 that with VLAN-ID 1501 transport packets to the ingress routing device 211 in Fig. 6) .

Regarding claim 8, wherein the ingress router is included in the first VLAN-ID (ingress Edge router 211 is included in first VLAn 101 in Fig. 6).

Regarding claim 9, wherein the egress router is included in the second VLAN-ID (egress Edge router 213 is included in first VLAn 1501 in Fig. 6).

Regarding claim 10, a method of forwarding data packets from a source endsystem in a first enterprise local area network LAN (Lan enterprise 201 in Fig. 6) to a destination endsystem in a second enterprise LAN (Lan enterprise 203 in Fig. 6) through at least one intermediate enterprise LAN (LAN enterprise 202 in Fig. 6) and at least two Multi-Protocol Labeling System MPLS-aware routing segments (two segments IBGP-MP between elements 221, 212 and 213) , comprising:

establishing a first virtual LAN identifier VLAN-ID (VLAN –ID 101 in Fig. 6) to transport data packets from the source endsystem to a first MPLS-aware routing device (First MPLS edge router 211 in Fig. 6) in a first of the at least two MPLS-aware routing segments (in the first IBGP-MP segment) ; creating a label switched path from the first MPLS aware routing device through a last MPLS aware routing device for each routing segment (It would be inherent in a MPLS network to create such an LSP path due to that the MPLS label in a packet can serve as an index into a forwarding table which specifies the next node for the packet. The path associated with a virtual circuit within an MPLS network is referred to as a Label Switched Path (or LSP)-and delineated by one or more MPLS labels that are, at various times, encapsulated into packets propagating over this path) ;

establishing a VLAN-ID in each intermediate enterprise LAN to transport data packets from a last router on a preceding routing segment to a first router on a succeeding routing Segment(VLAN-ID 152 intermediate Lan enterprise 202 in Fig. 6); and establishing a second VLAN-ID in the second enterprise LAN (Second VLA –ID 1501 in second Lan enterprise 203 in Fig. 6) to transport data packets from the last MPLS-aware routing device (Last MPLS edge router 213 in Fig. 6) on a last routing segment to the destination end system.(on a last segment IBGP-MP between routers 212 and 213)

Regarding claim 18 , Hama discloses a Network and edge router a virtual end-to-end circuit to transport packets comprising: a packet transfer device to initiate transfer of the packets from one end of the virtual end- to-end circuit to another end

(CPE 214 in Fig. 6) ; a virtual local area network VLAN in the First enterprise network (VLAN A in Enterprise network 201 in Fig. 6) to transport the packets from the packet transfer device through the first enterprise network to an ingress router (Ingress router 211 in Fig. 6) at the global network;

a label switched path LSP to enable packets to be trabnsported grom the ingress router to an egress router on the global network (It would be inherent in a MPLS network to create such an LSP path due to that The MPLS label in a packet can serve as an index into a forwarding table which specifies the next node for the packet. The path associated with a virtual circuit within an MPLS network is referred to as a Label Switched Path (or LSP)-and delineated by one or more MPLS labels that are, at various times, encapsulated into packets propagating over this path.) ; and a second virtual local area network VLAN (VLAN C in Fig. 6) in the second enterprise network (second Enterprise network 203 in Fig. 6) to transport the packets from the egress router (egress router 213 in Fig. 6) through the second enterprise network to a destination end system.

Regarding claim 15, wherein the global network is an Internet (paragraph 0077 line 4).

Regarding claim 16, wherein the ingress router is included in the first VLAN-ID Ingress router 211 is in first VLAN 201 in Fig. 6).

Regarding claim 17, wherein the egress router is included in the second VLAN-ID. (egress router is included in second VLAn 203 in Fig. 6)

Regarding claims19 and 25, wherein the global network is an Internet.

(paragraph 0077 line 4).

Regarding claim 21 and 27, wherein the packet transfer device is a Computerworkstation (CLPE 214 in Fig. 6)

Regarding claim 22, wherein the VLAN is created at a LAN switch.(at switching hubs 215 AND 217 , paragraph 0078)

Regarding claim 23, wherein the VLAN is created at an endsystem. (at either enterprise network 201 or 203 in Fig, 6)

Regarding claim 28, wherein the first and second VLANs are created at a LAN switch(at switching hubs 215 and 217 , paragraph 0078)

Regarding claim 29, wherein the first and second VLANs are created at an endsystem(at enterprise network 201 and 203 in Fig. 6)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 2004/0202171 (Hama).

Regarding claim 24, Hama discloses a Network and edge router a virtual end-to-end circuit to transport packets comprising: a packet transfer device to initiate transfer of the packets from one end of the virtual end- to-end circuit to another end (CPE 214 in Fig. 6) ; a virtual local area network VLAN in the First enterprise network (VLAN A in Enterprise network 201 in Fig. 6) to transport the packets from the packet transfer device through the first enterprise network to an ingress router (Ingress router 211 in Fig. 6) at the global network;

a label switched path LSP to enable packets to be transported from the ingress router to an egress router on the global network (It would be inherent in a MPLS network to create such an LSP path due to that The MPLS label in a packet can serve as an index into a forwarding table which specifies the next node for the packet. The path associated with a virtual circuit within an MPLS network is referred to as a Label Switched Path (or LSP)-and delineated by one or more MPLS labels that are, at various times, encapsulated into packets propagating over this path.) ; and a second virtual local area network VLAN (VLAN C in Fig. 6) in the second enterprise network (second Enterprise network 203 in Fig. 6) to transport the packets from the egress router (egress router 213 in Fig. 6) through the second enterprise network to a destination end system.

Hama does not specifically discloses that the transmission of packets from the first VLAN through the first ELAN to an ingress router is secure; that the transmission of packets from the egress router through the second ELAN to the packet receiving device is secure.

However, it would have been obvious to a person of ordinary skill in the art at the time the invention was made that a Label switched path (LSP) can be treated as a tunnel through the network and that such tunnels are particularly useful in network communication security.

The motivation to do so is to is to obtain an MPLS network that can provide secure and reliable transfer of text, voice, image, and video data

5. Claims 6 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2004/0202171 (Hama).

Hama does not specifically disclose wherein a route of the Label-switched path is determined by hop-by-hop routing, as in claims 6 and 13.

However the prior art disclosed in Hama teaches that routes of the Label-switched path can be determined by hop-by-hop routing. (paragraph 0019)

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the Hama system by providing the hop-by-hop routing as disclosed in the prior art to have an MPLS network wherein each MPLS node independently chooses the next hop for each (FEC)

The motivation to do so is to obtain an MPLS network wherein the label assigned to the LSP can be different for each hop in the network

6. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2004/0202171 (Hama) in view of US 2003/0118036 (Gibson)

Hama does not specifically disclose a route of the label-switched path being determined by explicit routing as in claims 7 and 14.

However Gibson discloses that a route of the label-switched path can be determined by explicit routing (paragraph 0008 lines 5-7)

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Hama by providing the explicit routing as in Gibson to have a system wherein the routes are calculated independent of routing algorithms

The motivation to do so is to pre-establish labels for an end-to-end label switched path from a specified source to a specified destination such that no reprocessing of the IP header is necessary.

7. Claims 2-3 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2004/0202171 (Hama).in view of US 6,873,602 (Ambe) Hama does not specifically disclose wherein the first and second VLAN-IDs are established by a network administrator, as in claim 2 and 12; , wherein the first and second VLAN-IDs are established by a software program., as in claim 3 and 11

However Ambe discloses a Network system switch and server , wherein the first and second VLAN-IDs are established by a network administrator(col 2 lines 29-33); wherein the first and second VLAN-IDs are created by a Software program (col 5 lines 38-43).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Hama by providing different ways of establishing a VLAN, either manually or automatically.

The motivation to do do is to provide choices in the establishment of a VLAN.

8. Claims 20 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2004/0202171 (Hama).in view of US 2003/0061338 (Stelliga)

Hama does not disclose a packet initiating transfer device being a server, as in claim 20; a packet receiving device being a server, as in claim 20.

However, Stelliga discloses a Broadband system wherein a packet initiating transfer device is a server (i.e. servers 1 and 4 in Fig. 3 ,paragraph 0059 lines 6-7); wherein the packet receiving device is a server (i.e server 2 and 3 in Fig. 3, paragraph 0059 lines 6-7 that refers to endpoint of the network –source and destination-).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Hama by providing packet transmitting and receiving servers , to have a network wherein contents with large data size files can be distributed in the servers to improve the speed of response and alleviate the burden on network traffic.

The motivation to do so is to obtain a network capable of providing detailed monitoring of traffic flow attributable of a specific customer to a service provider (paragraph 0035 lines 5-8).

Conclusion

9. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(571) 273-8300

(for formal communications intended for entry, for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to 220 South 20th Street, Crystal Plaza Two, Lobby, Room 1B03, Arlington, Va 22202 (Customer Window).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Ricardo Pizarro** whose telephone number is (571) 272-3077. The examiner can normally be reached on Monday-Friday from 9:00 AM to 5:30 PM. .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Hassan Kizou** can be reached on (571) 272-3088

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

October 16, 2005
Ricardo Pizarro

HASSAN KIZOU
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